

Abstract of the Disclosure:

In a method of manufacturing a semiconductor device by using a sapphire substrate, a nitrogen-based semiconductor thick film is deposited on the sapphire substrate by VPE and is left without any cracks by etching the sapphire substrate by an etchant. The nitrogen-based semiconductor thick film serves as a substrate for manufacturing the semiconductor device.

1. A method of manufacturing a semiconductor device, comprising the steps of: depositing a nitrogen-based semiconductor thick film on a sapphire substrate by VPE; etching the sapphire substrate by an etchant; and manufacturing the semiconductor device using the nitrogen-based semiconductor thick film as a substrate.